



Service Manual

FLIP ESSENTIAL 2

PORTABLE BLUETOOTH SPEAKER

SKU:

JBLFLIPES2, JBLFLIPES2AM,



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Important Safety Instructions

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket or table specified by the manufacturer or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, or the apparatus has been exposed to rain or moisture, does not operate normally or has been dropped.
15. Do not expose this apparatus to dripping or splashing and ensure that no objects filled with liquids, such as vases, are placed on the apparatus.
16. To completely disconnect this apparatus from the AC Mains, disconnect the power supply cord plug from the AC receptacle.
17. The mains plug of the power supply cord shall remain readily operable.
18. Do not expose batteries to excessive heat such as sunshine, fire or the like.



For Products That Transmit and Receive RF Energy:

FCC Regulations (USA Only)

FCC Information For Users

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference; and (2) this device must accept any interference received, including interference that may cause undesired operation.

Radio and Television Interference

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and then on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Increase the separation between the equipment and receiver.
- Connect the equipment to a different outlet so that the equipment and receiver are on different branch circuits.
- Consult the dealer or an experienced radio/TV technician for help.

NOTE: Changes or modifications not expressly approved by Harman could void the user's authority to operate the equipment.

IC Statement and Warning (Canada Only)

This Class B digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

For Canadian Model

This Class B digital apparatus complies with Canadian ICES-003.

Modèle pour les Canadien

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

For Products with Radio Receivers That Can Use an External Antenna:

CATV or Antenna Grounding

If an outside antenna or cable system is connected to this product, be certain that it is grounded so as to provide some protection against voltage surges and static charges. Section 810 of the National Electrical Code, ANSI/NFPA No. 70-1984, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes and requirements of the grounding electrode.

Note to CATV System Installer:

This reminder is provided to call the CATV (cable TV) system installer's attention to article 820-40 of the NEC, which provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as possible.

For CD/DVD/Blu-ray Disc™ Players:

CLASS 1 LASER PRODUCT
KLASSE 1 LASER PRODUKT
LUOKAN 1 LASER LAITE
KLASS 1 LASER APPARAT
CLASSE 1 PRODUIT LASER

CAUTION

RISK OF ELECTRIC SHOCK. DO NOT OPEN.



THE LIGHTNING FLASH WITH AN ARROWHEAD SYMBOL, WITHIN AN EQUILATERAL TRIANGLE, IS INTENDED TO ALERT THE USER TO THE PRESENCE OF UNINSULATED "DANGEROUS VOLTAGE" WITHIN THE PRODUCT'S ENCLOSURE THAT MAY BE OF SUFFICIENT MAGNITUDE TO CONSTITUTE A RISK OF ELECTRIC SHOCK TO PERSONS.



THE EXCLAMATION POINT WITHIN AN EQUILATERAL TRIANGLE IS INTENDED TO ALERT THE USER TO THE PRESENCE OF IMPORTANT OPERATING AND MAINTENANCE (SERVICING) INSTRUCTIONS IN THE LITERATURE ACCOMPANYING THE PRODUCT.

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE.

Caution:

This product uses a laser system. To prevent direct exposure to the laser beam, do not open the cabinet enclosure or defeat any of the safety mechanisms provided for your protection. DO NOT STARE INTO THE LASER BEAM. To ensure proper use of this product, please read the owner's manual carefully and retain it for future use. Should the unit require maintenance or repair, please contact your local Harman Kardon service center. Refer servicing to qualified personnel only.

For Products That Include Batteries:



Instructions for Users on Removal and Disposal of Used Batteries.

CAUTION

Risk of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type.

Alkaline batteries are considered nonhazardous. Rechargeable batteries (i.e., nickel cadmium, nickel metal-hydride, lithium and lithium-ion) are considered hazardous household materials and may pose an unnecessary health and safety risk.

In the European Union and other locations, it is illegal to dispose of any battery with household trash. All batteries must be disposed of in an environmentally sound manner. Contact your local waste management officials for information regarding the environmentally sound collection, recycling and disposal of used batteries.

To remove the batteries from your equipment or remote control, reverse the procedure described for inserting batteries in the owner's manual.

For products with a built-in battery that lasts for the lifetime of the product, removal may not be possible for the user. In this case, recycling or recovery centers handle the dismantling of the product and the removal of the battery. If, for any reason, it becomes necessary to replace such a battery, this procedure must be performed by authorized service centers.

ELECTROSTATICALLY SENSITIVE(ES) DEVICES

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field effect transistors and semiconductor "chip" components.

The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge build-up or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static solder removal device. Some solder removal devices not classified as "anti-static" can generate electrical charges sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical change sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material.)
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

CAUTION : Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together or your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES devices.

POODUCT SAFETY NOTICE

Each precaution in this manual should be followed during servicing.

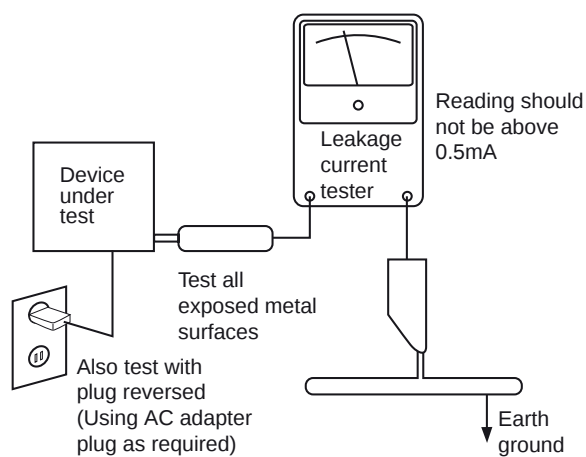
Components identified with the IEC symbol  in the parts list are special significance to safety. When replacing a component identified with , use only the replacement parts designated, or parts with the same ratings or resistance, wattage, or voltage that are designated in the parts list in this manual. Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5mA.



AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

TECH SPEC

Transducer:	44 x 80 mm/ 1.73 x 3.15"
Output power:	20 W RMS
Frequency response:	65 Hz - 20 kHz
Signal-to-noise ratio:	> 80 dB
Battery type:	Li-ion polymer 11.70 Wh (equivalent to 3.6V 3250mAh)
Battery charge time:	3 hours (5V / 2A)
Music play time:	up to 10 hours (dependent on volume level and audio content)
Cable type:	USB-C charging cable
Cable length:	1200 mm/ 47.2"
Bluetooth® version:	5.1
Bluetooth® profile:	A2DP 1.3, AVRCP 1.6

Bluetooth® transmitter frequency range:	2402 MHz - 2480 MHz
Bluetooth® transmitter power:	≤ 9 dBm (EIRP)
Bluetooth® transmitter modulation:	GFSK, π/4 DQPSK, 8DPSK
Product dimensions (W x H x D):	175 x 68 x 70 mm/ 6.9 x 2.6 x 2.7"
Net weight:	0.52 kg/ 1.14 lbs
Packaging dimensions (W x H x D):	208 x 105 x 98 mm/ 8.2 x 4.1 x 3.8"
Gross weight:	0.91 kg/ 2.01 lbs
Maximum operation temperature:	45 °C

截图(Alt + A)

FR		DA		DE		EL	
CONTENU DE LA BOÎTE	RECHARGE	DET ER DER I ÆSKEN	OPLADNING	LIEFERUMFANG	LADEVORGANG	ΤΙ ΕΙΝΑΙ ΣΤΟ ΚΟΥΤΙ	ΦΟΡΤΙΣΗ
APPARAGE BLUETOOTH	ÉTANCHÉITÉ IPX7	BLUETOOTH-PARRING	IPX7-VANDTÆT	BLUETOOTH-KOPPLUNG	WASSERDICHT GEMÄSS	ΖΕΥΞΗ BLUETOOTH	ΑΔΙΑΒΡΟΧΗ ΠΡΟΣΤΑΣΙΑ
JOUEZ		AFSPIL		PLAY	IPX7	ΑΝΑΠΑΡΑΓΩΓΗ	IPX7
CARACTÉRISTIQUES TECHNIQUES		TEKNISKE SPECIFIKATIONER		TECHNISCHE DATEN		ΤΕΧΝΙΚΕΣ ΠΡΟΔΙΑΓΡΑΦΕΣ	
Haut-parleur :	44 x 80 mm / 1,73 x 3,15"	Transducer:	44 x 80 mm / 1,73 x 3,15"	Lautsprechertrieberr:	44 x 80 mm	Μετατροπέας:	44 x 80 mm / 1,73 x 3,15"
Puissance de sortie :	20 W RMS	Udgangseffekt:	20 W RMS	Ausgangsleistung:	20 W RMS	Ισχύς εξόδου:	20 W RMS
Réponse en fréquence :	65 Hz - 20 kHz	Frekvensområde:	65 Hz - 20 kHz	Frequenzbereich:	65 Hz - 20 kHz	Συχνότητα απόκρισης:	65 Hz - 20 kHz
Rapport signal sur bruit :	> 80 dB	Signal-til-støjforhold:	> 80 dB	Rauschabstand:	> 80 dB	Αναλογία σήματος προς θόρυβο:	> 80 dB
Type de batterie :	Li-ion polymère	Batteritype:	Li-ion polymer 11,70 Wh (svarende til 3,6 V 3250 mAh)	Akku-Typ:	Lithium-Ionen-Polymer	Τύπος μπαταρίας:	Πολυμερών ιόντων λιθίου
	11,70 Wh (équivalent à 3,6 V, 3 250 mAh)				11,70 Wh (gleichwertig zu 3,6 V, 3.250 mAh)		11,70 Wh (ισοδύναμο με 3,6 V 3 250 mAh)
Temps de charge de la batterie :	3 heures (5 V / 2 A)	Batteriopladingstid:	3 Timer (5 V / 2 A)	Akkuladedaure:	3 Stunden (5 V / 2 A)	Χρόνος φόρτισης μπαταρίας:	3 ώρες (5 V / 2 A)
Autonomie de lecture de musique :	Jusqu'à 10 heures (selon le niveau du volume et le contenu audio)	Musik-spilletid:	op til 10 timer (afhængigt af lydstyrkeniveau og lydindhold)	Musikwiedergabezeit:	Bis zu 10 Stunden (abhängig von Lautstärke und Audioinhalt)	Διάρκεια αναπαραγωγής μουσικής:	έως 10 ώρες (διαφέρει ανάλογα με την ένταση ήχου και το περιεχόμενο μουσικής)
Type de câble :	Câble de charge USB-C	Kabeltype:	USB-C opladningskabel	Kabeltyp:	USB-C-Ladekabel	Τύπος καλωδίου:	Καλώδιο φόρτισης USB-C
Longueur du câble :	1 200 mm / 47,2"	Kabellængde:	1,2 meter	Kabellänge:	1.200 mm	Μήκος καλωδίου:	1.200 mm/ 47,2"
Version Bluetooth® :	5.1	Bluetooth®-version:	5.1	Bluetooth®-Version:	5.1	Έκδοση Bluetooth®:	5.1
Profil Bluetooth® :	A2DP 1.3, AVRCP 1.6	Bluetooth®-profil:	A2DP 1.3, AVRCP 1.6	Bluetooth®-Profil:	A2DP 1.3, AVRCP 1.6	Προφίλ Bluetooth®:	A2DP 1.3, AVRCP 1.6
Plage de fréquences de l'émetteur Bluetooth® :	2 402 MHz - 2 480 MHz	Bluetooth®-senderens frekvensområde:	2402 MHz - 2480 MHz	Frequenzbereich für die Bluetooth®-Übertragung:	2.402 MHz - 2.480 MHz	Εύρος ζώνης συχνότητων του πομπού Bluetooth®:	2.402 MHz - 2.480 MHz
Puissance de l'émetteur Bluetooth® :	≤ 9 dBm (PIRE)	Bluetooth®-senderens effekt:	≤ 9 dBm (EIRP)	Bluetooth®-Übertragungsleistung:	≤ 9 dBm (EIRP)	Ισχύς πομπού Bluetooth®:	≤ 9 dBm (EIRP)
Modulation de l'émetteur Bluetooth® :	GFSK, π/4 DQPSK, 8DPSK	Bluetooth®-sendermodulation:	GFSK, π/4 DQPSK, 8DPSK	Bluetooth®-Übertragungsmodulation:	GFSK, π/4 DQPSK, 8DPSK	Διαμόρφωση πομπού Bluetooth®:	GFSK, π/4 DQPSK, 8DPSK
Dimensions du produit (L x H x P) :	175 x 68 x 70 mm / 6,9" x 2,6" x 2,7"	Mål af produkt (B x H x D):	175 x 68 x 70 mm	Produktabmessungen (B x H x T):	175 x 68 x 70 mm	Διαστάσεις προϊόντος (Π x Υ x Β):	175 x 68 x 70 mm/ 6,9 x 2,6 x 2,7"
Poids net :	0,52 kg / 1,14 lbs	Nettovægt:	0,52 kg	Nettogewicht:	0,52 kg	Καθαρό βάρος:	0,52 kg/ 1,14 lbs
Dimensions de l'emballage (L x H x P) :	208 x 105 x 98 mm / 8,2" x 4,1" x 3,8"	Mål af emballage (B x H x D):	208 x 105 x 98 mm	Verpackungsabmessungen (B x H x T):	208 x 105 x 98 mm	Διαστάσεις συσκευασίας (Π x Υ x Β):	208 x 105 x 98 mm/ 8,2 x 4,1 x 3,8"
Poids brut :	0,91 kg / 2,01 lbs	Nettovægt:	0,91 kg	Bruttogewicht:	0,91 kg	Μικτό βάρος:	0,91 kg/ 2,01 lbs
Température de fonctionnement maximale :	45 °C	Maksimal driftstemperatur:	45 °C	Maximale Betriebstemperatur:	45 °C	Μέγιστη θερμοκρασία λειτουργίας:	45 °C

SOFTWARE UPGRADE & RESTORE FACTORY SETTING

Restore factory setting

1. Power on, Hold down<Vol+> & <Play>keys on the top panel about 2 seconds.
2. Then, the unit will power off, the reset successful.
3. After factory settings restored, the unit will reboot automatically.

Check software version.

1. Power on , Hold down <Vol+> & <Vol- > keys on the top panel about 2 seconds.
2. The unit will voice playback software version.

Software upgrade via USB

1. BT Upgrade

When the device is powered on, insert the serial port connection board, hold down VOL-&BT about 10s , all LED flashes three times. Then open SPTestTool to push the Bluetooth firmware upgrade.

2. MCU Upgrade

When the device is powered on, insert the serial port connection board, hold down VOL+&BT about 10s, all LED flashes three times. Then open TeraTerm to push MCU

TROUBLE SHOOTING

TROUBLE	CHECKING POINTS
SPEAKER SYSTEM NO SOUND,NOT WORKING	THE MAIN BOARD NG
	THE WIRE CONNECT NG
	THE SPEAKER NG
	THE AC SOCKET IS NG
	THE POWER BOARD IS NG
SPEAKER SYSTEM CAN NOT CONNECT THE BT	THE BT ANTENNA CONNECTION IS NOT GOOD
	THE BT MODULE ON THE MAIN BOARD IS NOT GOOD
	THE MAIN BOARD NG
THE KEY ON THE TOP NOT WORKING	THE KEY CONNECT WIRE NG
	THE KEY BOARD NG
	THE MAIN BOARD NG

Disassembly Instructions-

Step 0: Open the carton and take out the gift box.

- 1) Remove adhesive tape as shown in figure 1
- 2) Take out the gift box as shown in figure 2
- 3) Tear away the two stickers which pasted on gift box as shown in figure 3
- 4) Take out the product as shown in figure 4
- 5) Open the cloth bag as shown in figure 5



Figure 1



Figure 2



Figure 3



Figure 4



Figure 5



Step1: Remove the grill cloth

- 1) Disconnect the lanyard in figure 6
- 2) Use screwdriver to disassemble mesh cover in figure 7
- 3) Demolition of net in figure 8



Figure 6

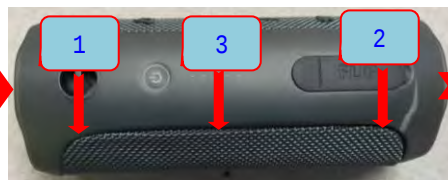


Figure 7



Figure 8

Step2: Remove the speaker shell.

- 1) Use a screwdriver to pry open the shell in figure 9
- 2) Demolition of the shell in figure 10



Figure 9



Figure 10

Step3: Remove left/right cover

- 1) Remove left/right cover as shown in figure 11



Figure 11



Step4: Remove the speaker screw and remove the horn cable

- 1) Remove 4 screws as shown in figure 12
- 2) Remove the cable from the speaker terminal and take out the trumpet in figure 13



Figure 12

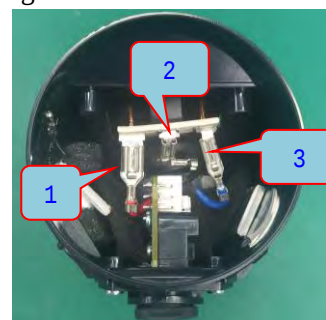


Figure 13

Step5: Unplug the FFC cable and USB cable

- 1) Remove the LAMP board FFC cable, key FFC cable, and USB cable respectively in figure 14

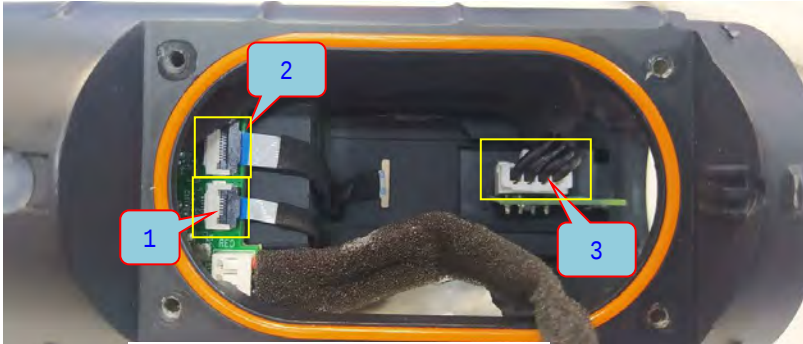


Figure 14

Step6: Remove the battery cover screw, remove the battery cover, and remove the Bluetooth antenna

- 1) Remove 2 battery cover screws as shown in figure 15
- 2) Remove the battery cover from the battery in figure 16
- 3) Remove the Bluetooth antenna in figure 17

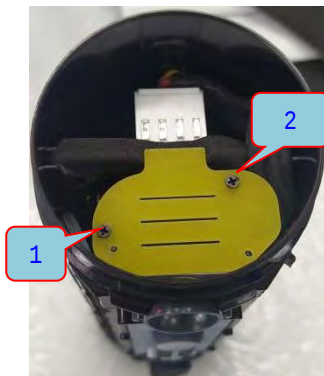


Figure 15



Figure 16



Figure 17

Step7: Take the mainboard and battery out of the case

- 1) Take the mainboard and battery out of the case in figure 18

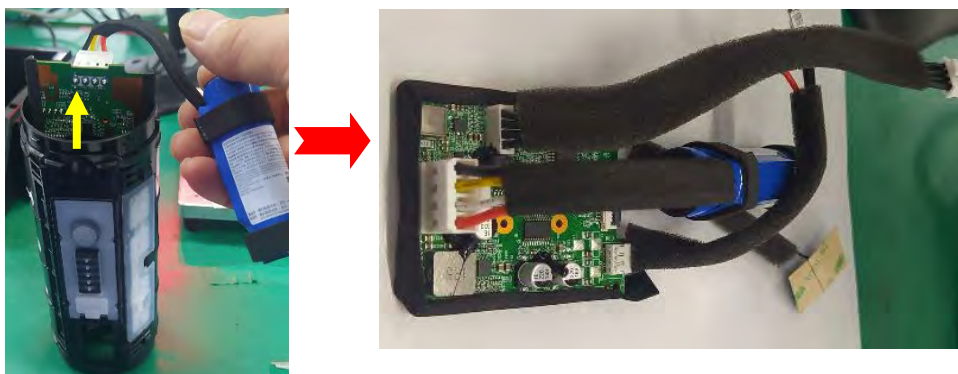


Figure 18

Step8: Remove seal cover

- 1) Remove the 4 screws from the seal cove in figure 19
- 2) Remove the seal cover from the box in figure 20

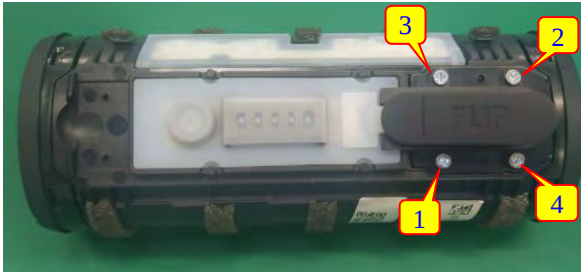


Figure 19



Figure 20

Step9: Remove the silicone keys and remove the keypad

- 1) Remove the silicone keys as shown in figure 21
- 2) Remove the keyboard from the box in figure 22



Figure 21

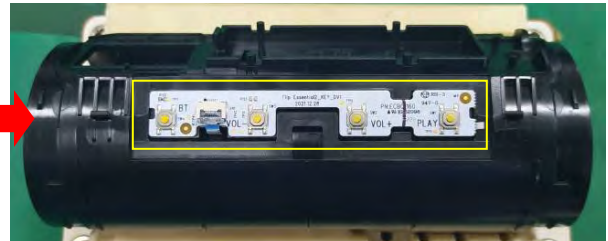


Figure 22

Step10: Remove the silicone button and lamp board from the cabinet

- 1) Remove the silicone keys as shown in figure 23
- 2) Remove the light button panel from the box in figure 24

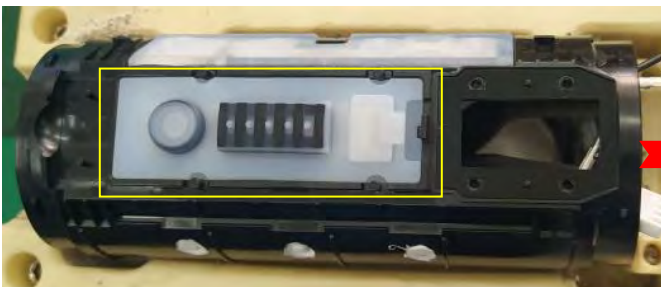


Figure 23

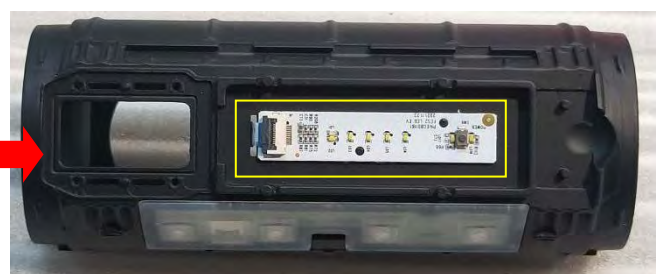


Figure 24

Step11: Insert the lamp board FFC line, stick the lamp board on the box, stick the silicone button

- 1) Insert the lamp board FFC line and attach the lamp board in figure 25
- 2) Install silicone buttons on the lamp board in figure 26

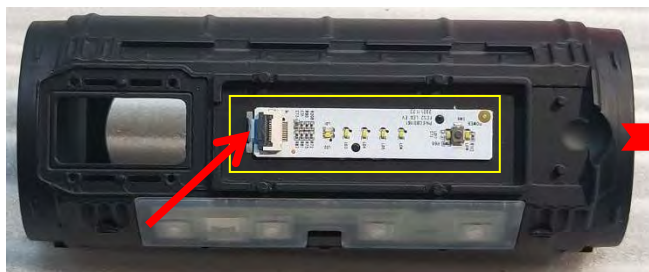


Figure 25



Figure 26

Step12: Insert the connecting line of the key board and install the silicone keys

- 1) Insert the connecting line of the keyboard as shown in figure 27
- 2) Install the silicone keys as shown in figure 28

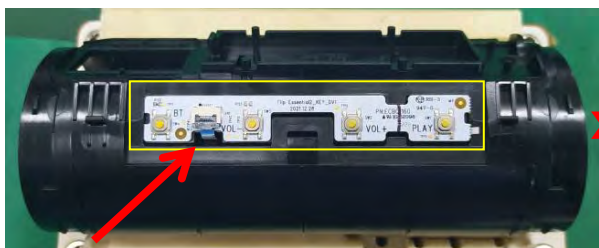


Figure 27



Figure 28

Step13: Install the cover and lock the cover screws

- 1) Put the sealing cover into the box and lock 4 screws to fix it in figure 29

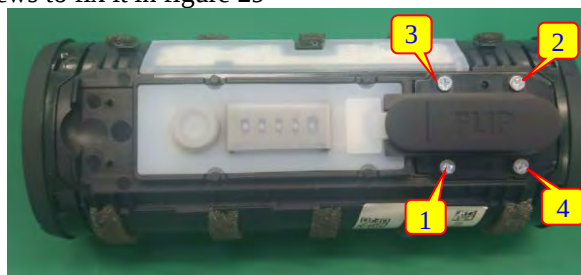


Figure 29

Step14: Install the power amplifier board and battery, and lock screws to secure the battery cover

- 1) Install the power amplifier board and battery in figure 30
- 2) Lock screws to secure the battery cover in figure 31

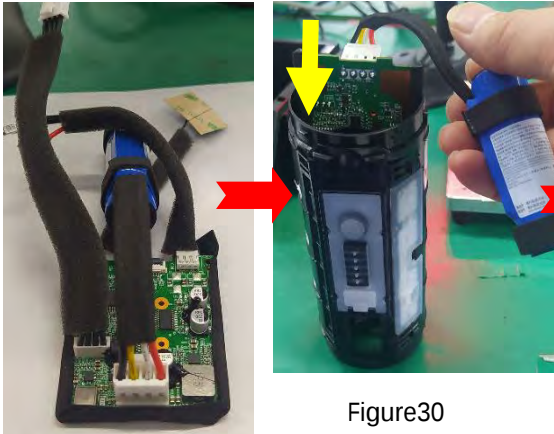


Figure30

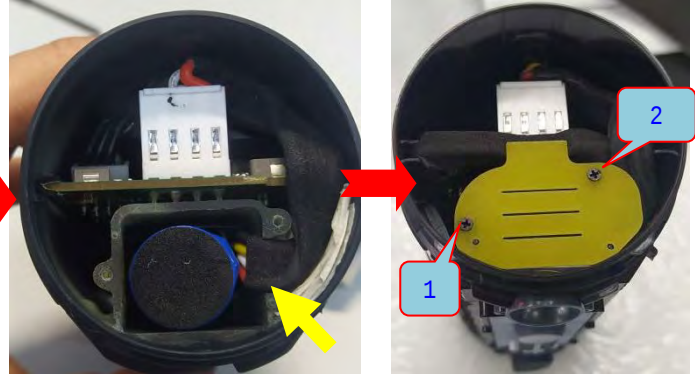


Figure31

Step15: Insert each connection line tightly, stick bluetooth antenna in the box

- 1) Insert key cable, lamp board cable and USB cable in figure 32
- 2) Stick the Bluetooth antenna in the box in figure 33

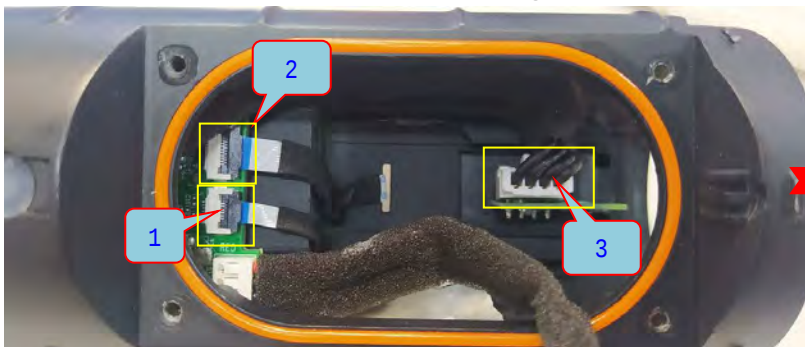


Figure 32

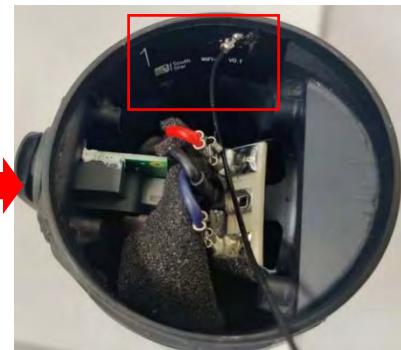


Figure 33

Step16: Insert the speaker line connection line on the power amplifier board into the speaker terminal block and install the speaker into the box

- 1) Horn plug positive and negative connector cable in figure 34
- 2) Insert horn ground to middle terminal block in figure 35
- 3) Put the horn connected with the connecting line into the box in figure 36

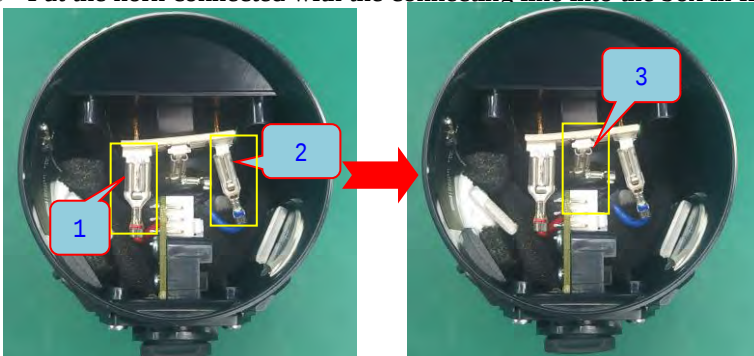


Figure 34



Figure 36

Step17: There are 4 screws in total for lock horn screw fixatio

- 1) There are 4 screws in total for lock horn screw fixatio in figure 37



Figure 37

Step18: Install left/right cover

- 1) Install left and right passive radiators on both sides of the box in figure 38 and figure 39



Figure 38



Figure 39

Step19: Take the shell and install it on the box

- 1) Install the housing in the box and snap all the fasteners into place in figure 40

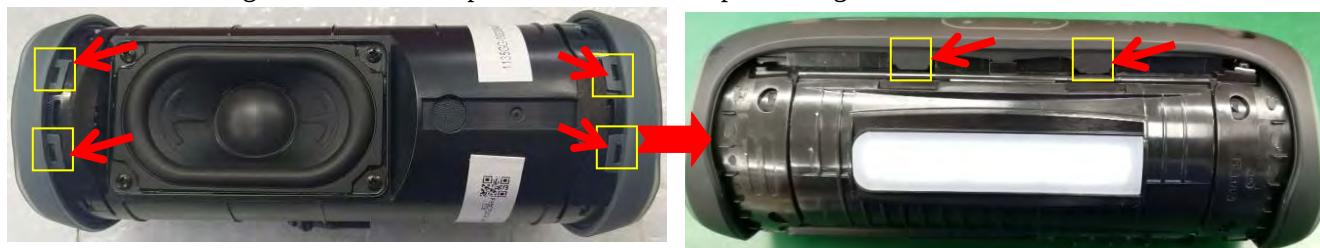


Figure 40

Step20: Install the mesh frame group

- 1) Install the mesh frame group and clamp the mesh cover tightly in figure 41



Figure 41

Step21: Wear a hang rope

1) Take the lanyard and put it into the back shell. The lanyard interface should not be exposed in figure 42



Figure 42

Step22: Pack product into the gift box

- 1) Pack product into cloth pag as shown in figure 43
- 2) Pack product into the box as shown in figure 44
- 3) Stick two stickers on the box as shown in figure 45
- 4) Pack the box into gift box as shown in figure 46
- 5) Stick adhesive tape on the gift box as shown in figure 47



Figure 43



Figure 44



Figure 45



Figure 46

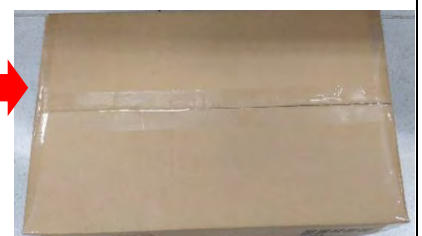
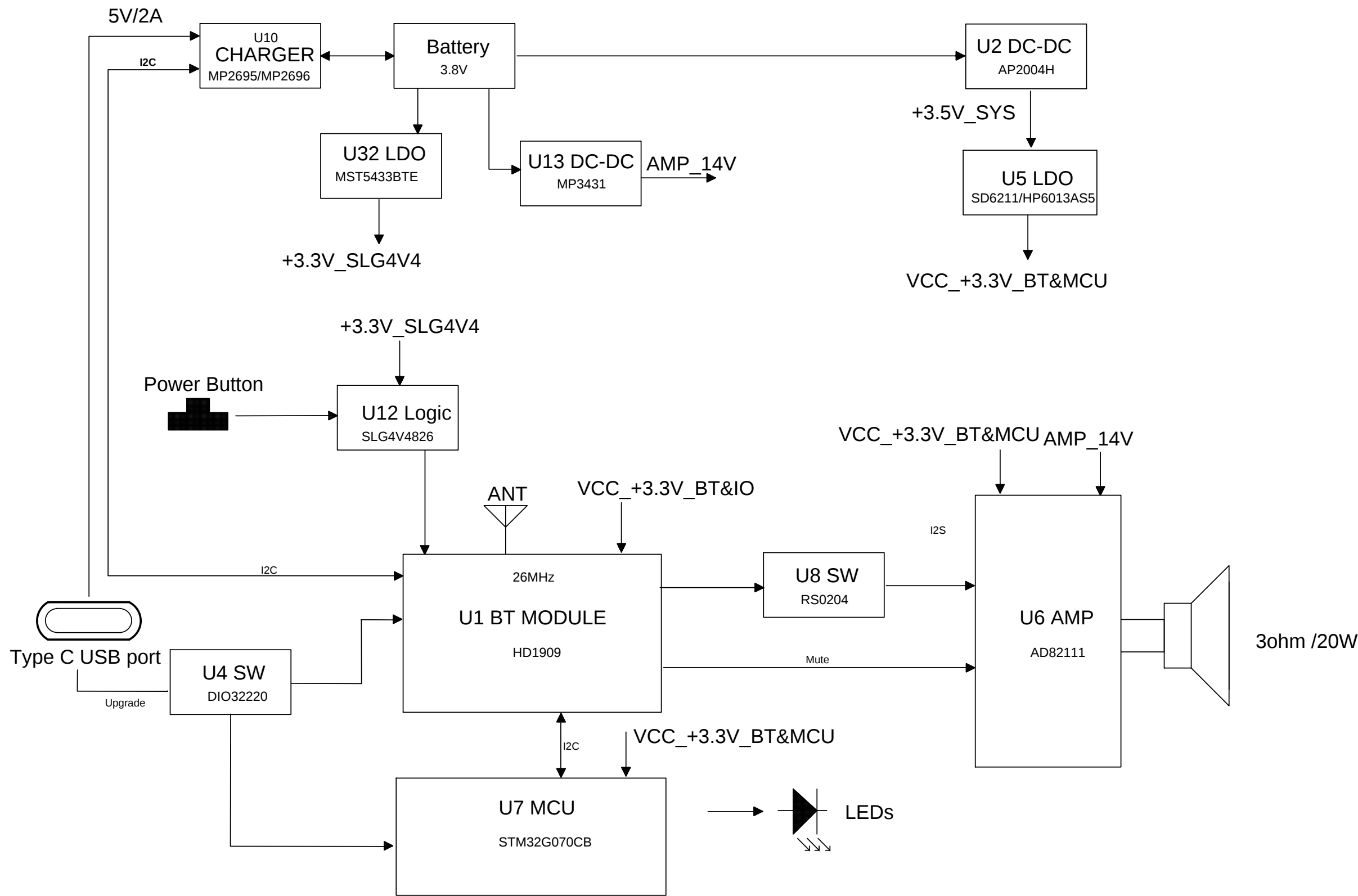
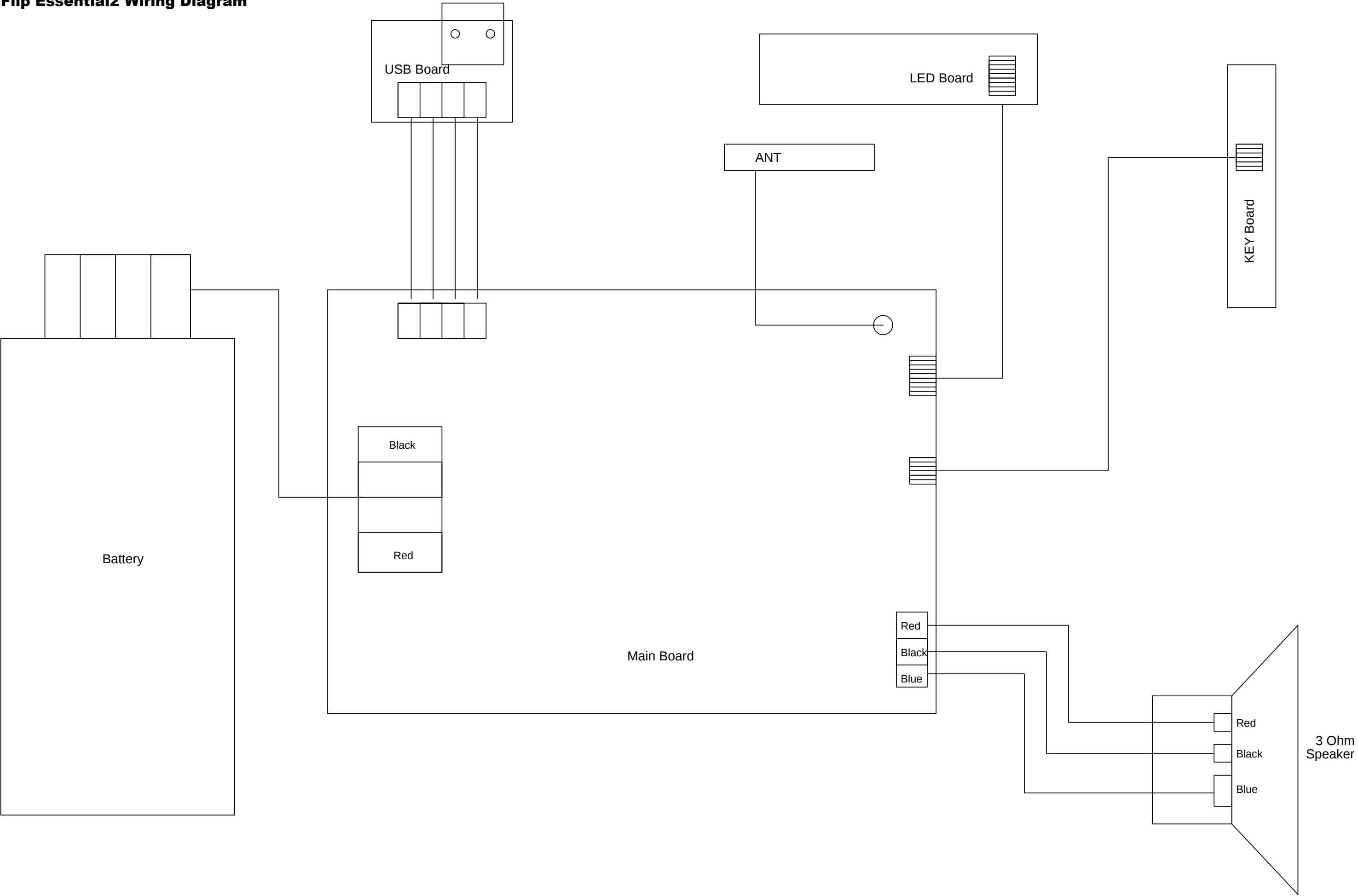


Figure 47

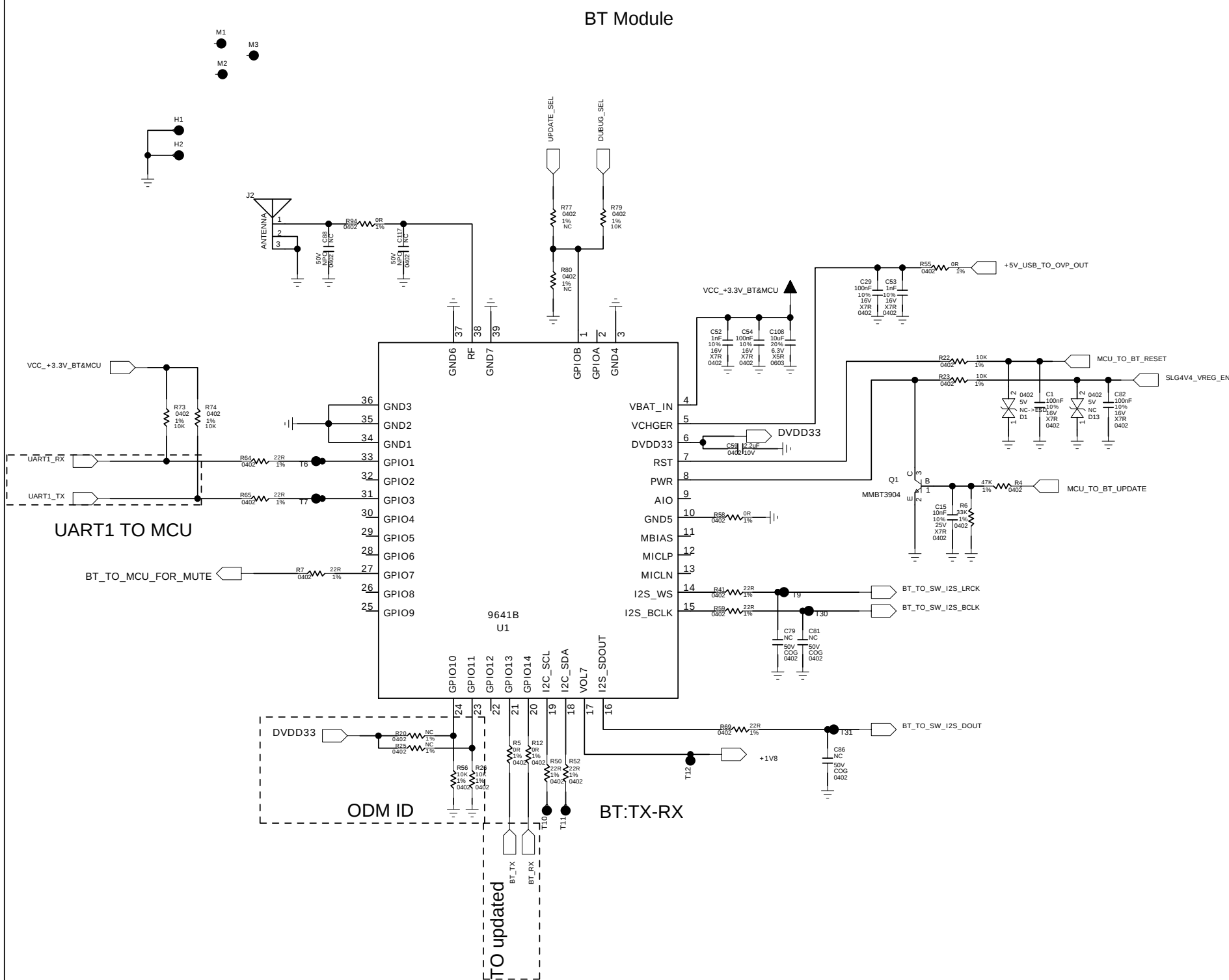
Flip Essential2 Block Diagram



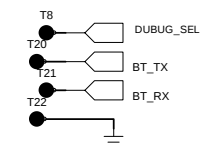
Flip Essential2 Wiring Diagram



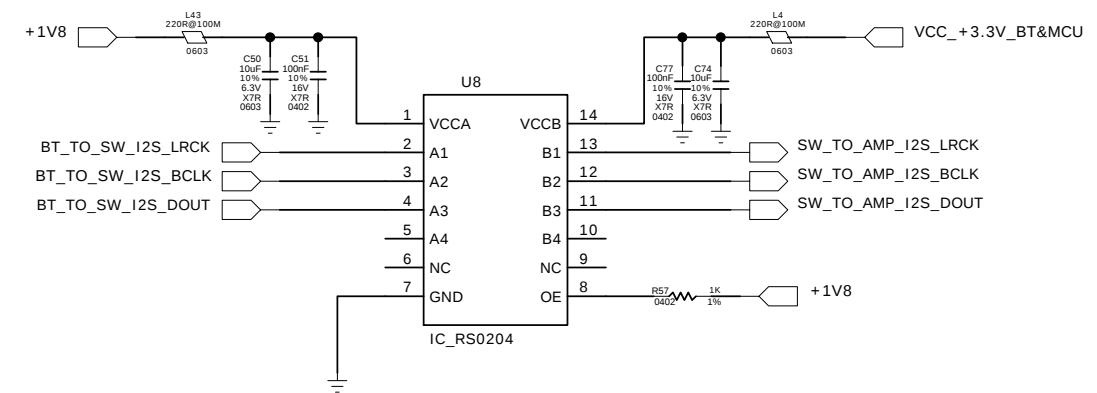
Flip Essential2 Main Board BT



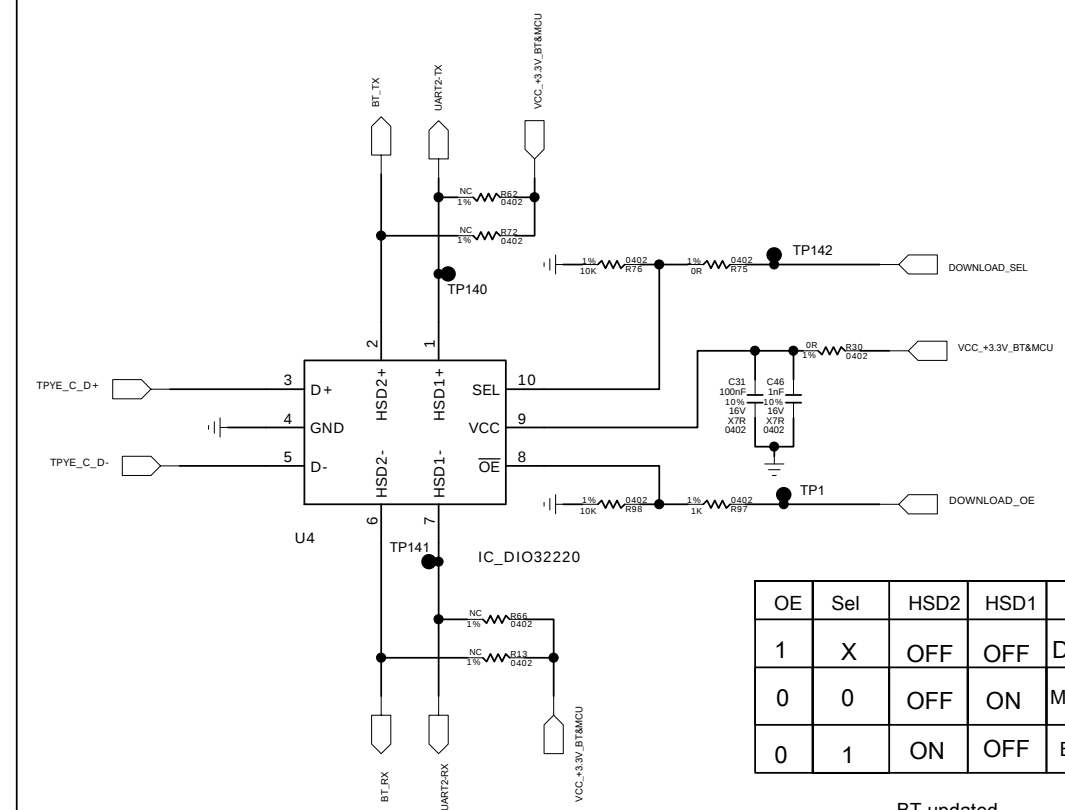
BT debug



I2S 1.8V to 3.3V



Update SW

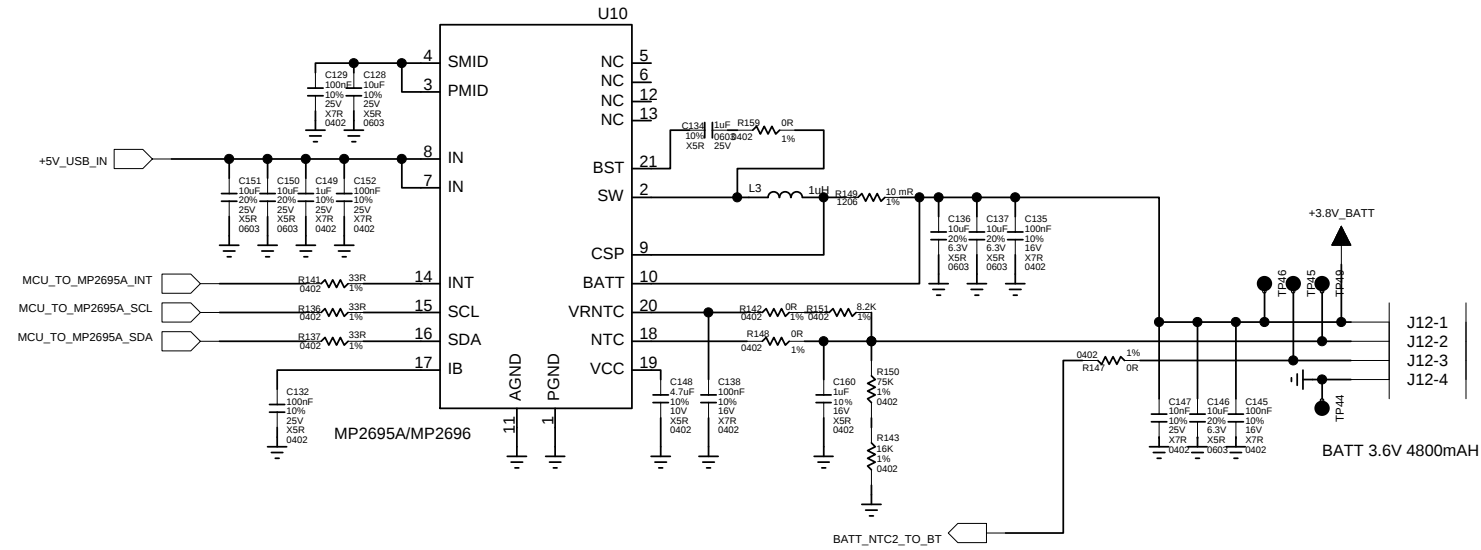


OE	Sel	HSD2	HSD1	
1	X	OFF	OFF	Disconnect
0	0	OFF	ON	MCU updated
0	1	ON	OFF	BT updated

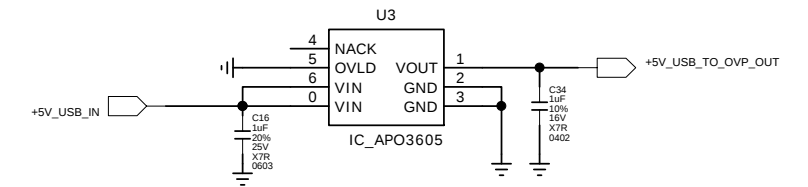
BT updated
MCU updated

Flip Essential2 Main Board Charge+Power

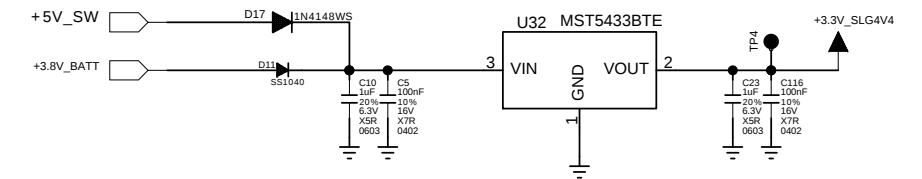
Charge module



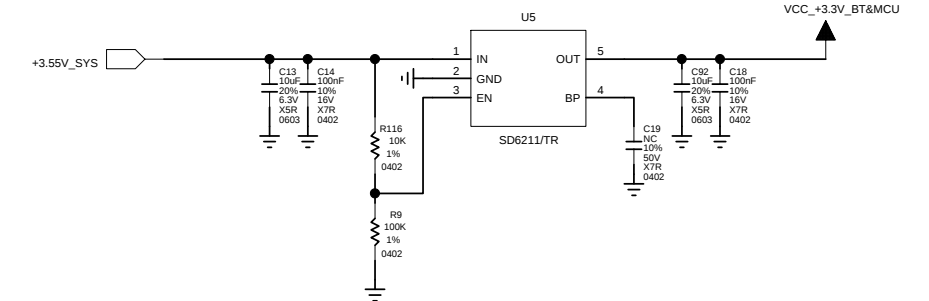
OVP



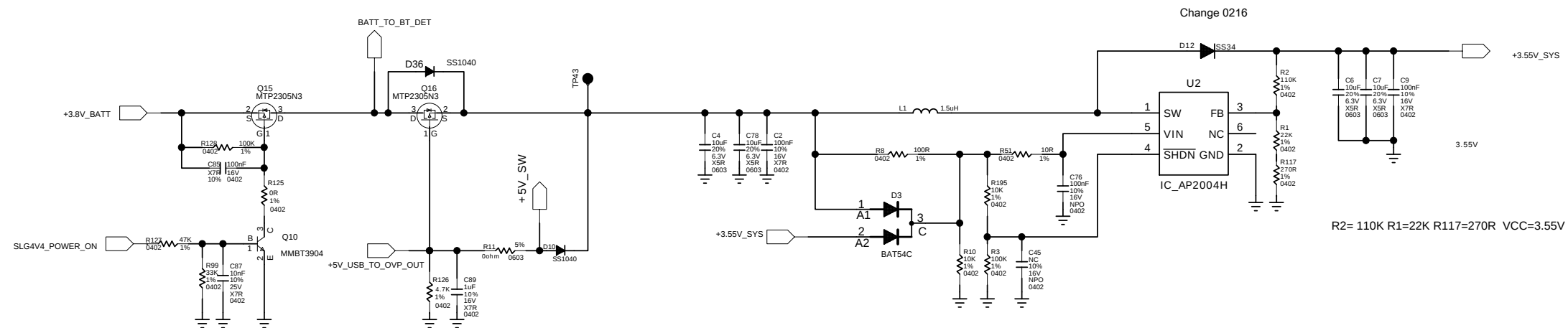
Power for logic 3.3V



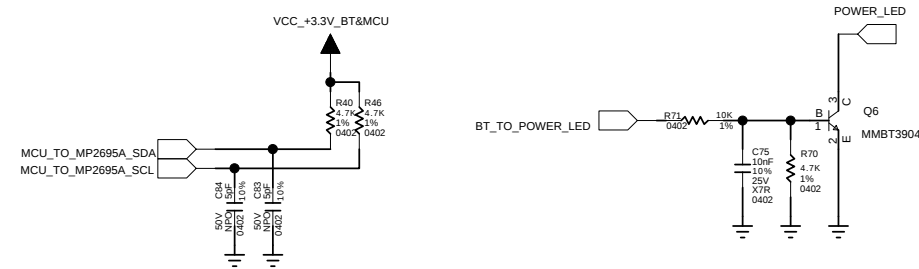
Power for BT&MCU 3.3V



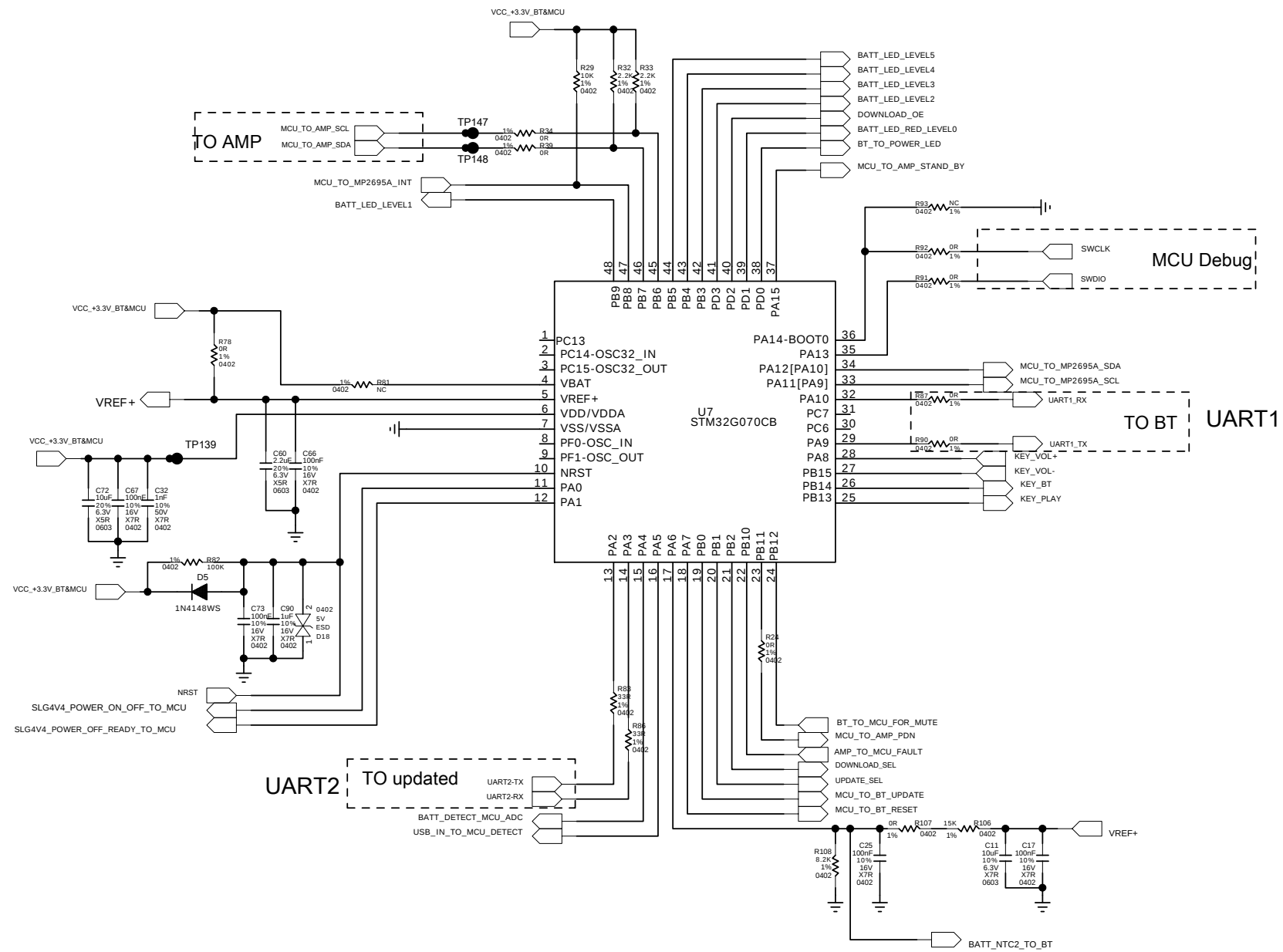
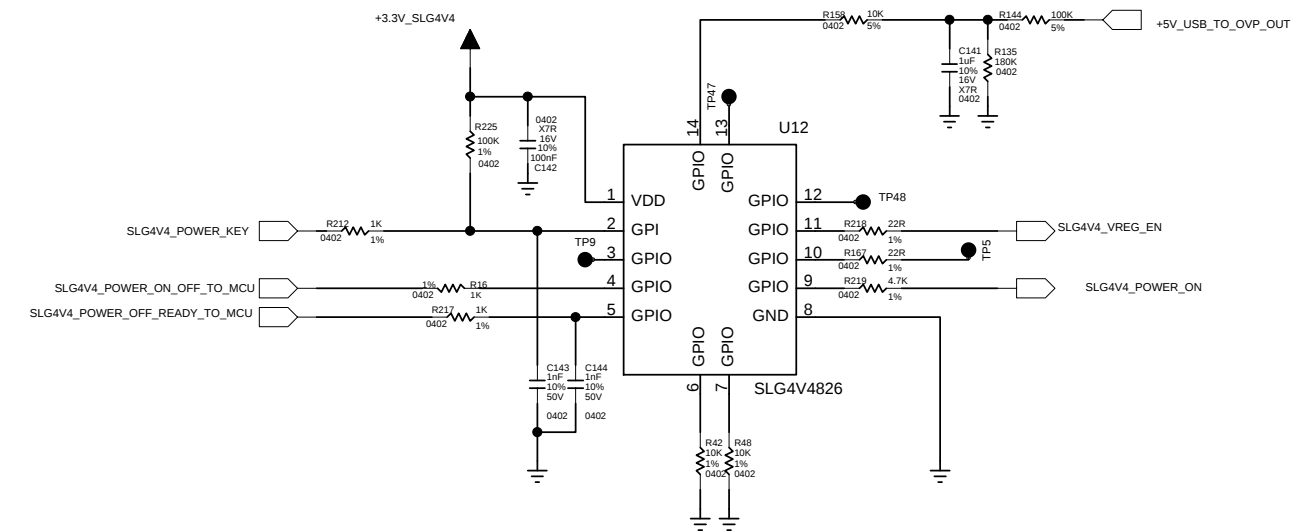
Power for system 3.55V



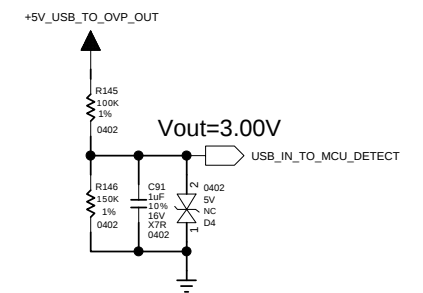
Flip Essential2 Main Board MCU



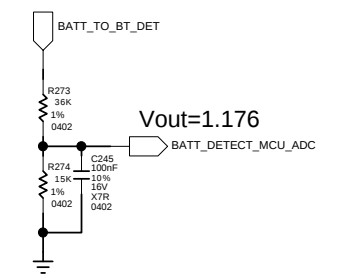
MCU



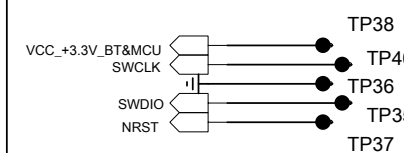
USB Detect



Battery Detect

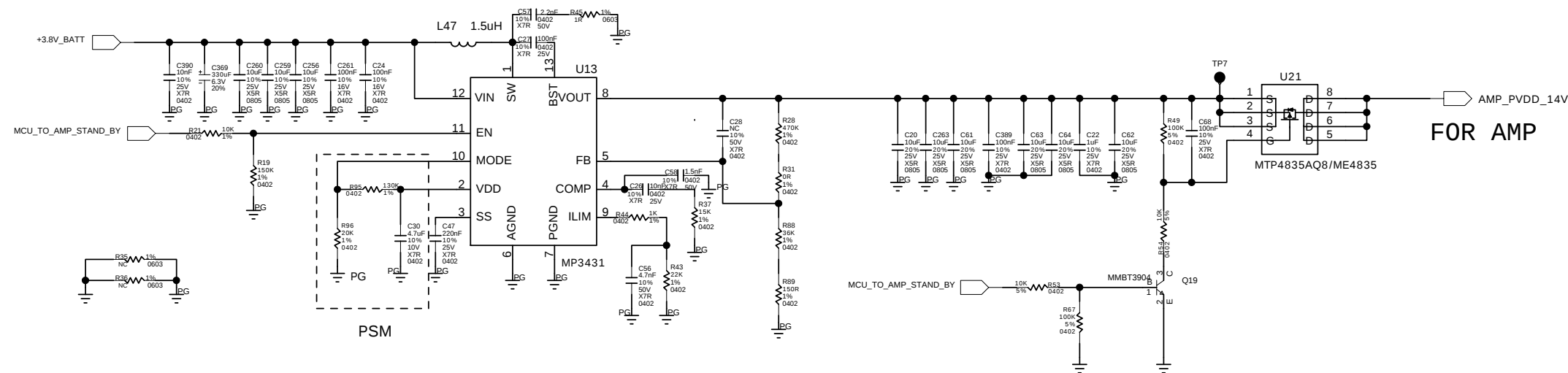


For MCU Debug Port

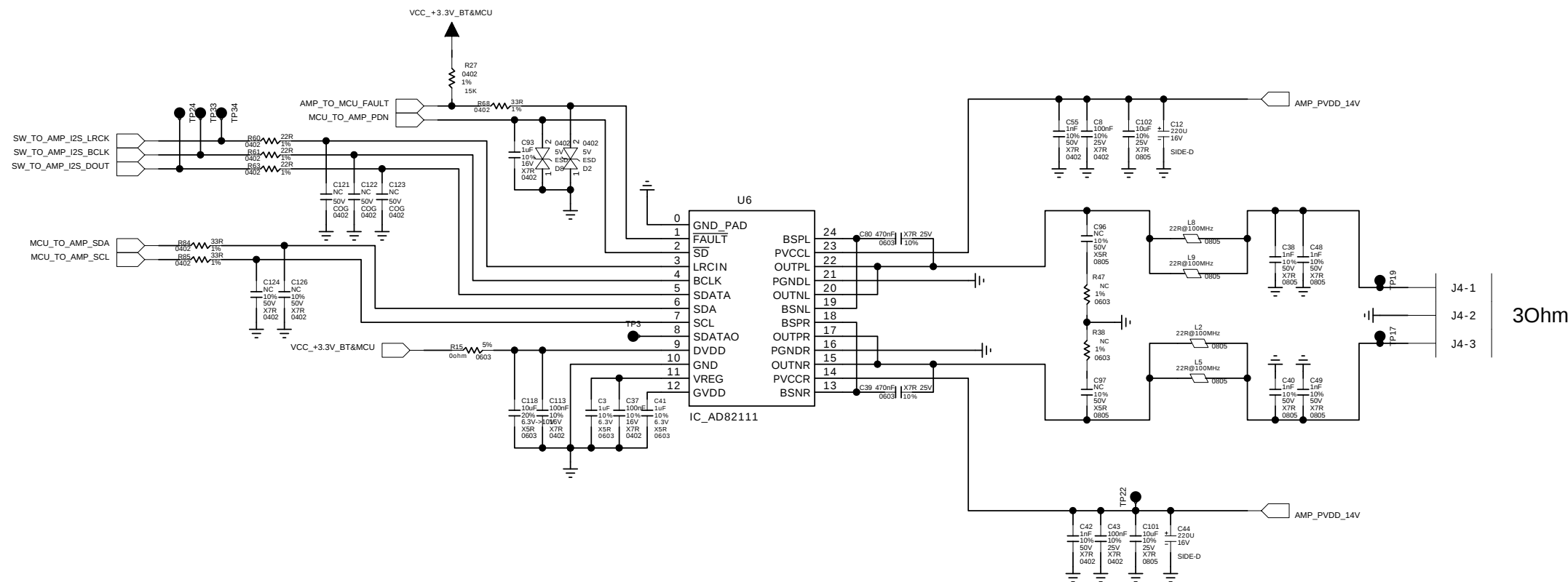


Flip Essential2 Main Board DCDC+AMP

DCDC for AMP

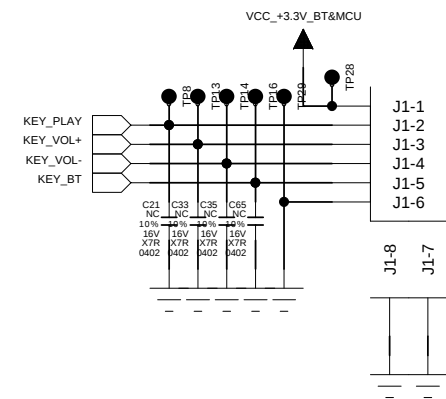


AMP

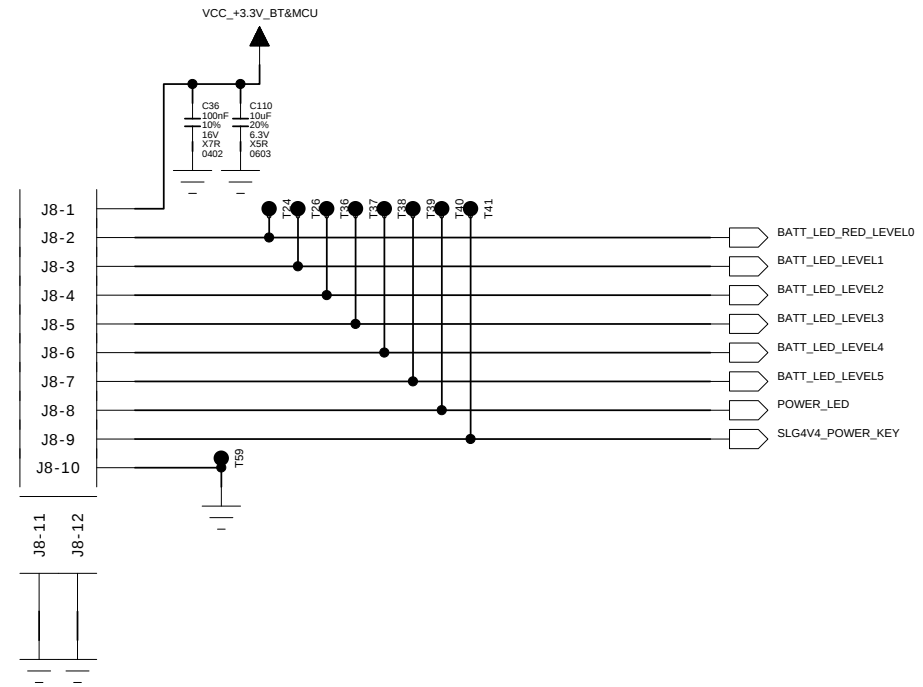


Flip Essential2 Main Board IO

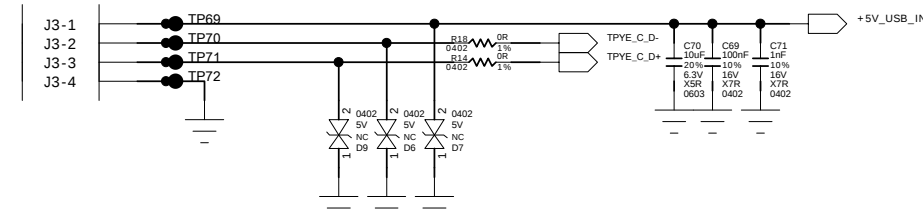
Connect for KEY Board



Connect for LED Board



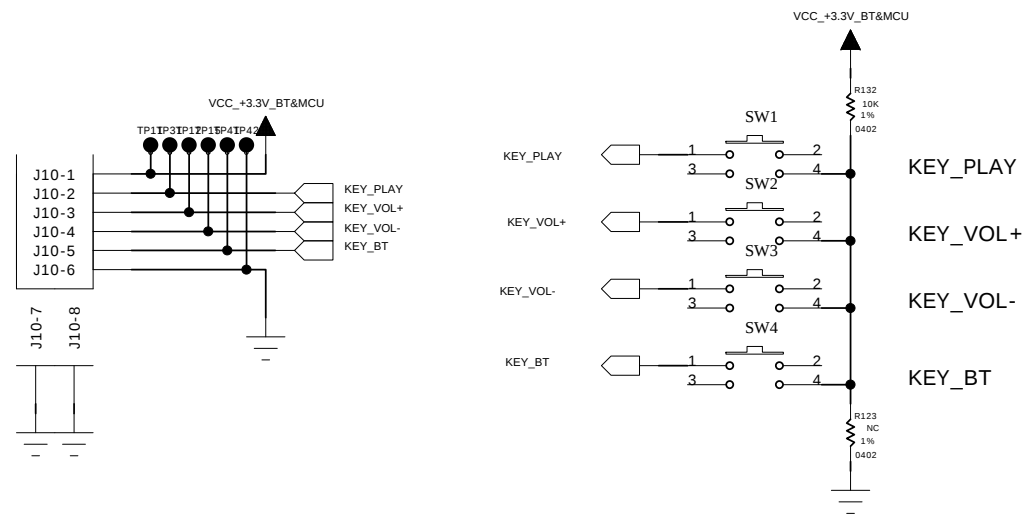
Connect for USB Board



Flip Essential2 KEY Board

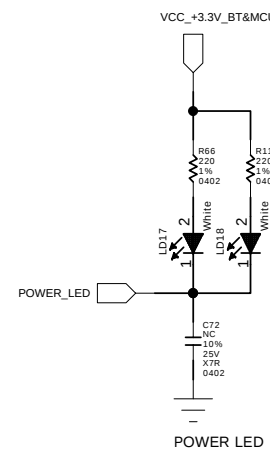
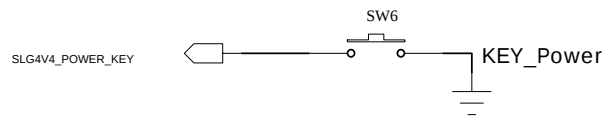
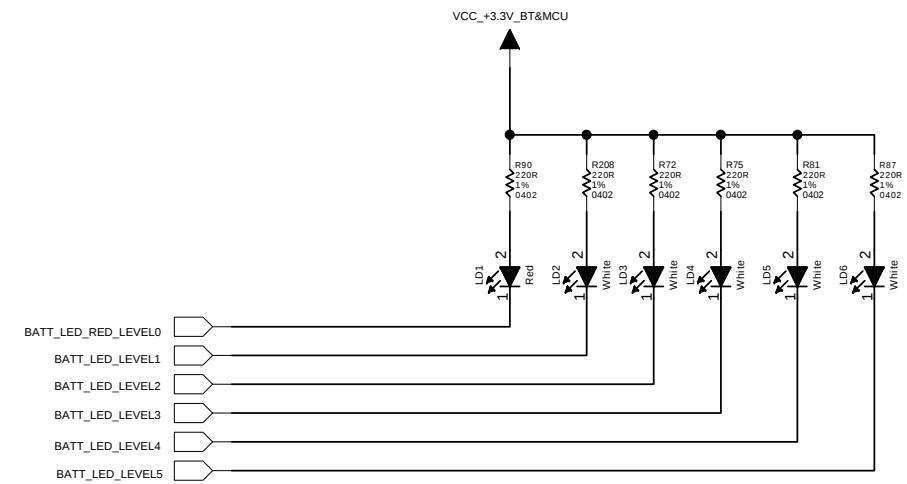
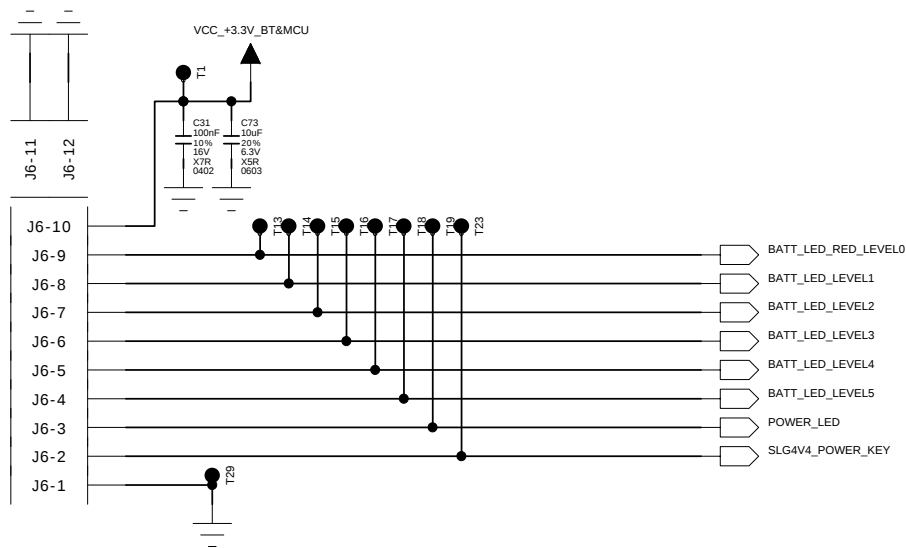
M3

M4



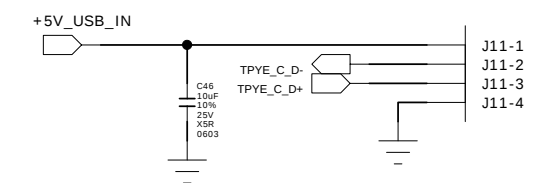
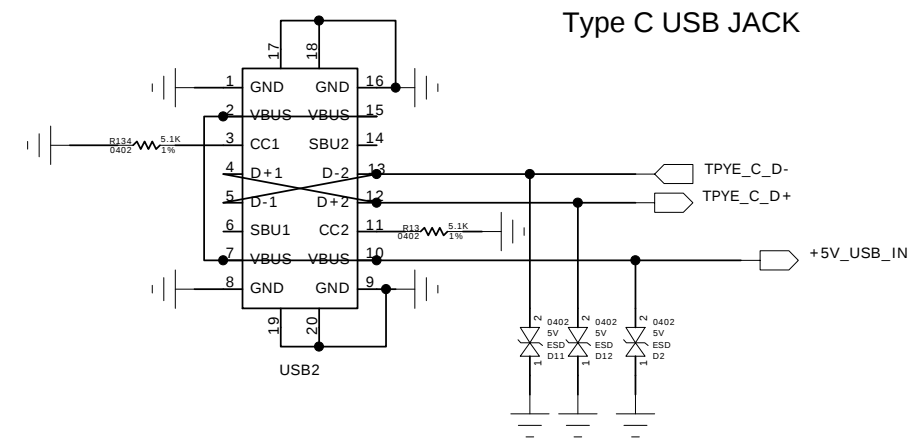
Flip Essential2 LED Board

M5
M6

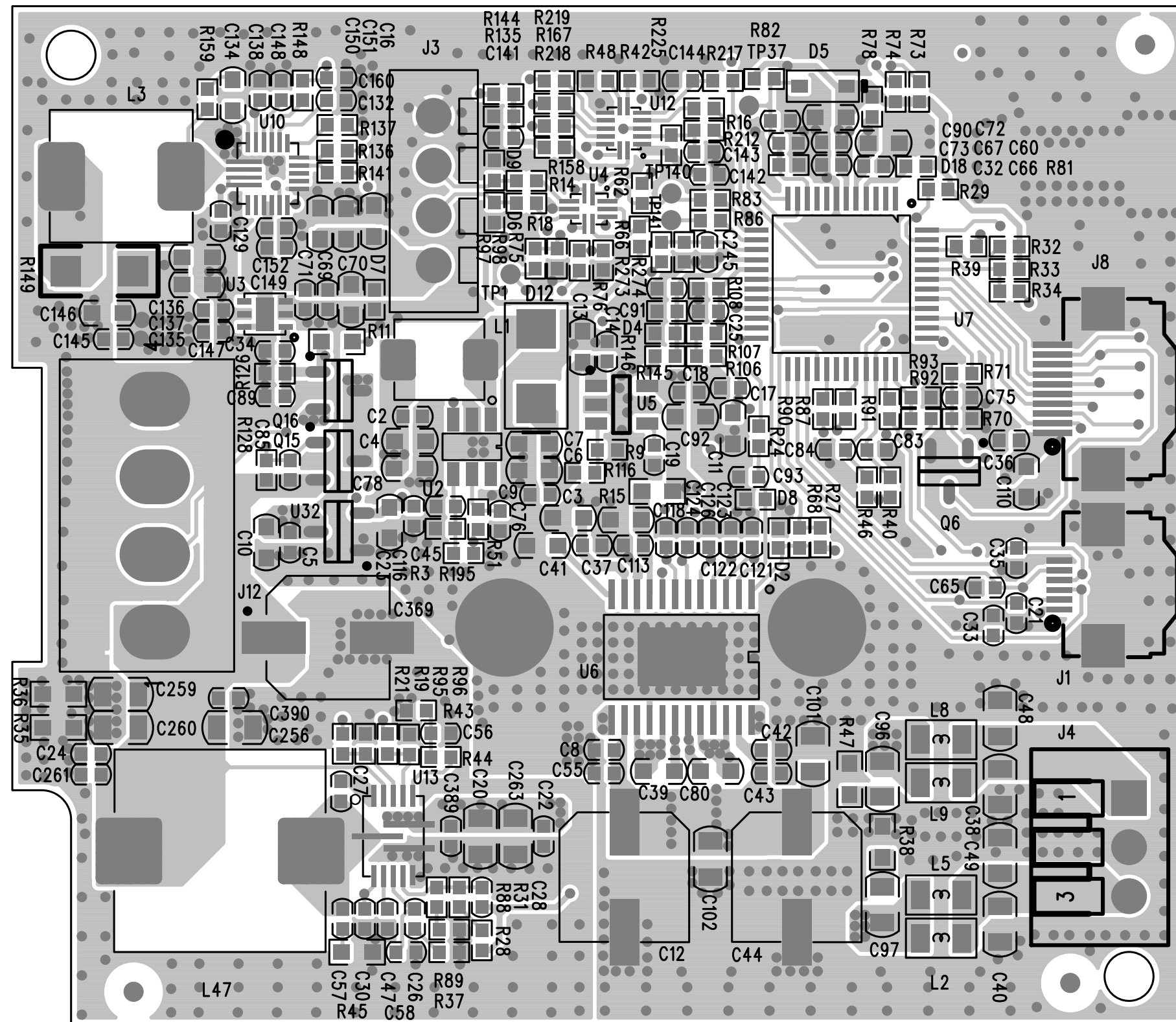


Flip Essential2 USB Board

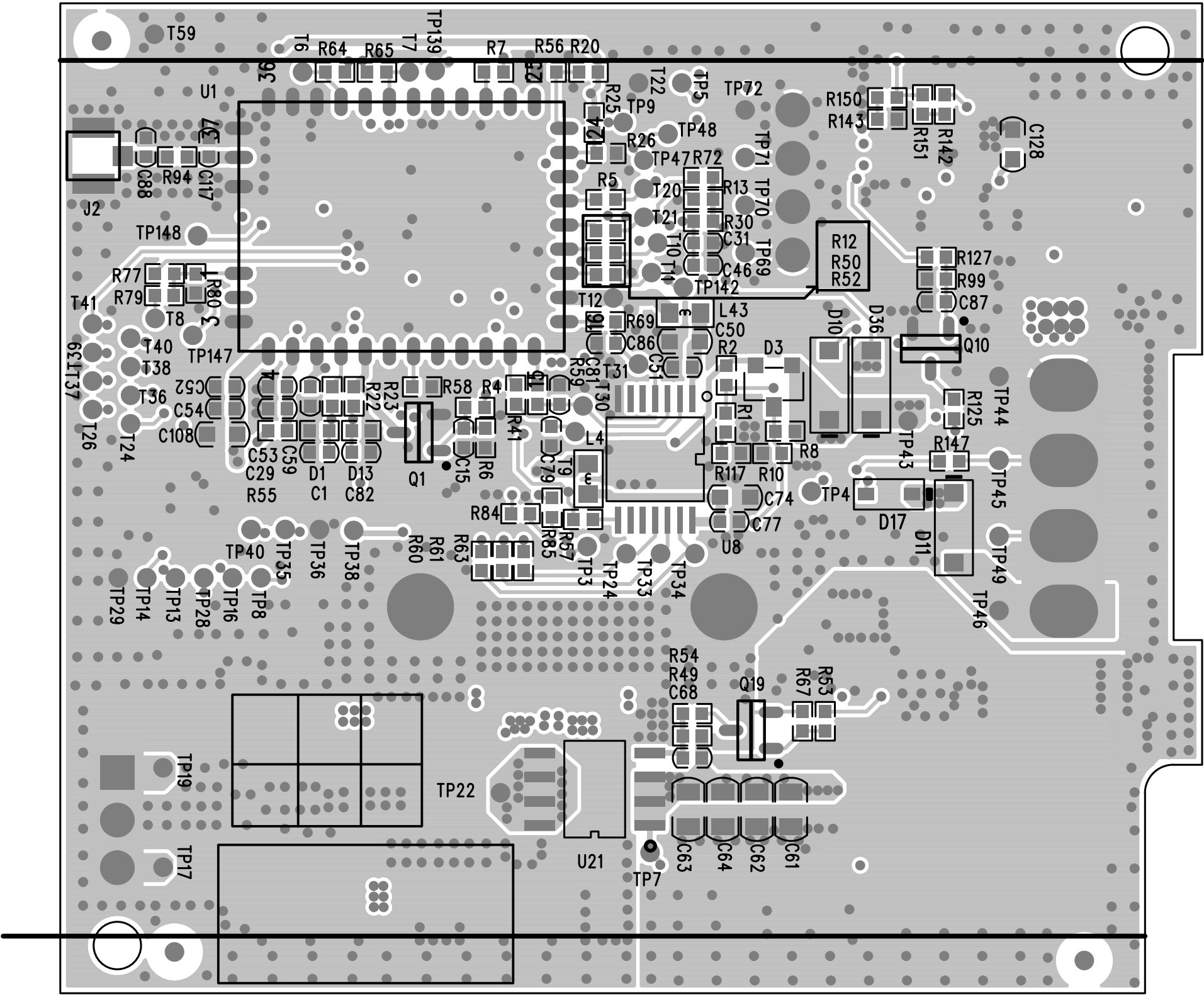
M1
●
M2
●



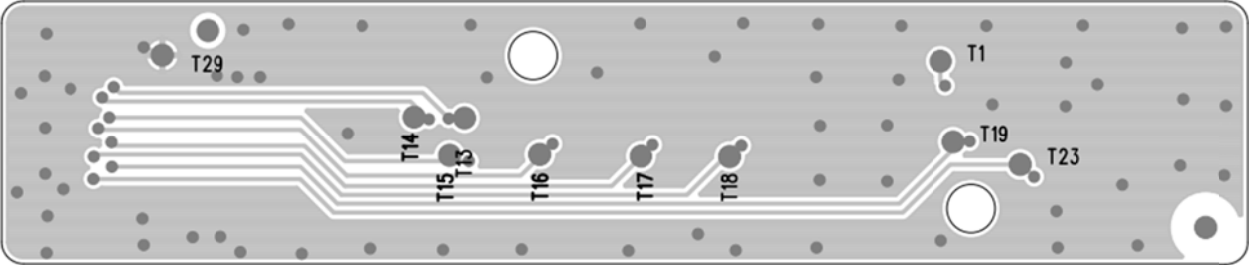
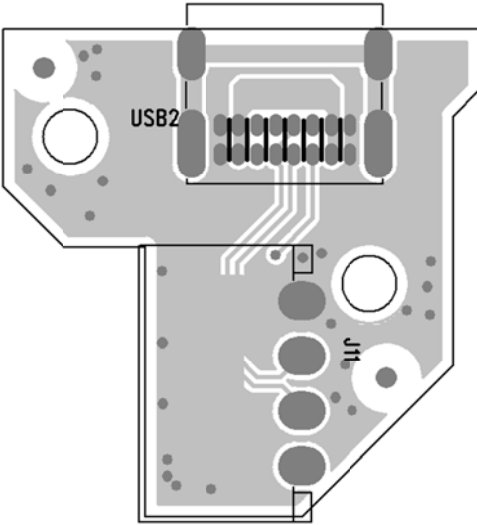
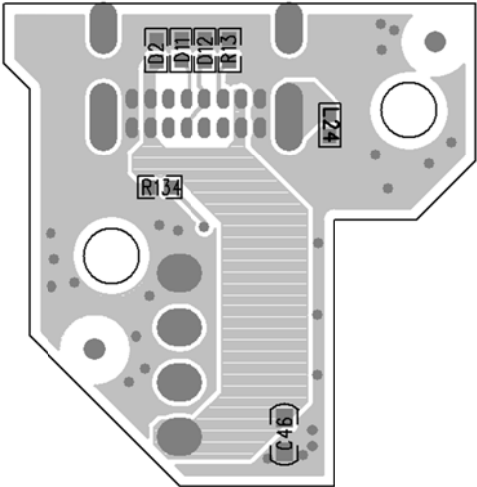
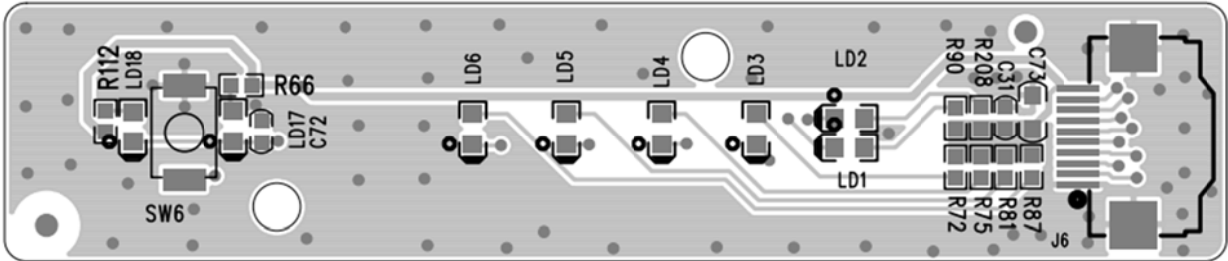
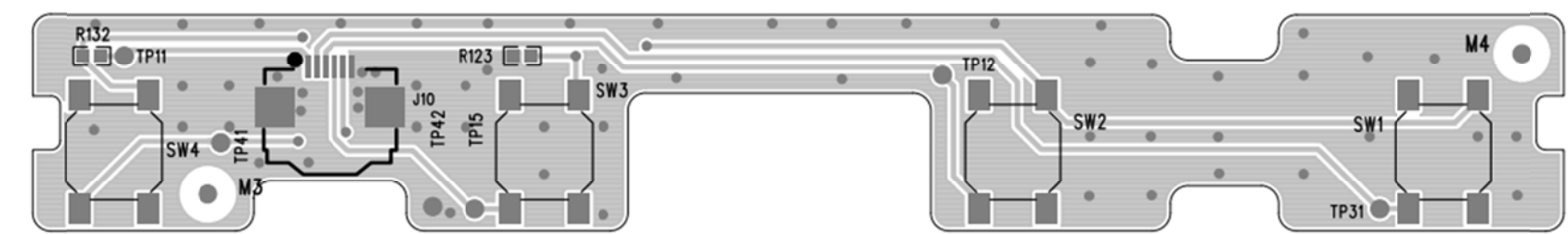
Flip Essential2 Main Board Layout



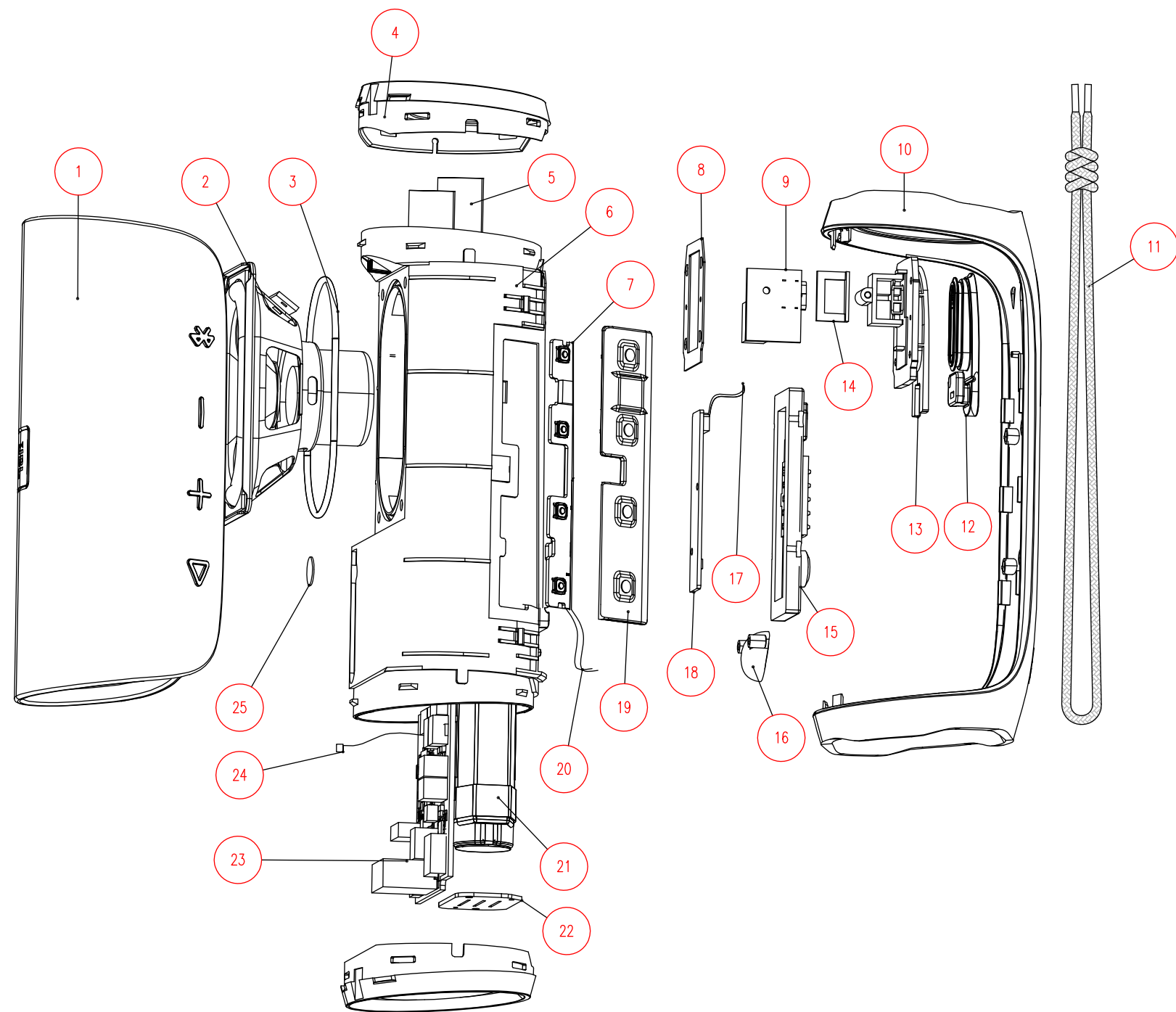
Flip Essential2 Main Board Layout



Flip Essential2 KEY+LED+USB Board Layout



MECHANICAL EXPLODED VIEW



Pos. No.	P/N	Description	UoM	Usage
1	PAS02014336	FABRIC GRILLE ASSY BLK FLIP ESSENTIAL 2	EA	1
2	PAS02014337	SPEAKER DRIVER FLIP ESSENTIAL 2	EA	1
3	PAS02014338	SPK O-RING FLIP ESSENTIAL 2	EA	1
4	PAS02014339	PASSIVE RADIATOR L+R FLIP ESSENTIAL 2	PR	1
5	PAS02014340	CLUMP WEIGHT FLIP ESSENTIAL 2	EA	2
6	PAS02014341	CABINET FLIP ESSENTIAL 2	EA	1
7+18	PAS02014353	POWER & KEY BOARD FLIP ESSENTIAL 2	EA	1
8	PAS02014343	IO GASKET EVA FLIP ESSENTIAL 2	EA	1
9	PAS02014344	IO BOARD FLIP ESSENTIAL 2	EA	1
10	PAS02014345	SIDE COVER FLIP ESSENTIAL 2	EA	1
11	PAS02014346	STRAP FLIP ESSENTIAL 2	EA	1
12	PAS02014347	IO SEAL COVER FLIP ESSENTIAL 2	EA	1
13	PAS02014348	IO GASKET FLIP ESSENTIAL 2	EA	1
14	PAS02014349	IO BOARD EVA FLIP ESSENTIAL 2	EA	1
15	PAS02014350	POWER RUBBER BUTTON FLIP ESSENTIAL 2	EA	1
16	PAS02014351	DECORATIVE COVER FLIP ESSENTIAL 2	EA	1
17	PAS02014352	POWER FFC CABLE FLIP ESSENTIAL 2	EA	1
19	PAS02014354	KEY RUBBER BUTTON FLIP ESSENTIAL 2	EA	1
20	PAS02014355	KEY FFC CABLE FLIP ESSENTIAL 2	EA	1
21	PAS02014356	LI-ION BATTERY FLIP ESSENTIAL 2	EA	1
22	PAS02014357	BATTERY COVER FLIP ESSENTIAL 2	EA	1
23	PAS02014358	MAIN BOARD FLIP ESSENTIAL 2	EA	1
24	PAS02014359	BT ANTENNA FLIP ESSENTIAL 2	EA	1
25	PAS02014360	WATERPROOF LAYER FLIP ESSENTIAL 2	EA	1

JBL FLIP ESSENTIAL 2 - SPARE PARTS LIST V1.1

Pos. No.	P/N	Description	UoM	Usage
1	PAS02014336	FABRIC ASSEMBLY BLK FLIP ESSENTIAL 2	EA	1
2	PAS02014337	DRIVER FLIP ESSENTIAL 2	EA	1
3	PAS02014338	SEALING RING FLIP ESSENTIAL 2	EA	1
4	PAS02014339	PASSIVE RADIATOR L+R FLIP ESSENTIAL 2	PR	1
5	PAS02014340	CLUMP WEIGHT FLIP ESSENTIAL 2	EA	2
6	PAS02014341	CABINET FLIP ESSENTIAL 2	EA	1
7+18	PAS02014353	POWER & KEY BOARD FLIP ESSENTIAL 2	EA	1
8	PAS02014343	IO GASKET EVA FLIP ESSENTIAL 2	EA	1
9	PAS02014344	IO BOARD FLIP ESSENTIAL 2	EA	1
10	PAS02014345	SIDE COVER FLIP ESSENTIAL 2	EA	1
11	PAS02014346	HANGING ROPE FLIP ESSENTIAL 2	EA	1
12	PAS02014347	IO SEAL COVER FLIP ESSENTIAL 2	EA	1
13	PAS02014348	IO GASKET FLIP ESSENTIAL 2	EA	1
14	PAS02014349	IO BOARD EVA FLIP ESSENTIAL 2	EA	1
15	PAS02014350	POWER RUBBER BUTTON FLIP ESSENTIAL 2	EA	1
16	PAS02014351	DECORATIVE COVER FLIP ESSENTIAL 2	EA	1
17	PAS02014352	POWER FFC CABLE FLIP ESSENTIAL 2	EA	1
19	PAS02014354	KEY RUBBER BUTTON FLIP ESSENTIAL 2	EA	1
20	PAS02014355	KEY FFC CABLE FLIP ESSENTIAL 2	EA	1
21	PAS02014356	BATTERY FLIP ESSENTIAL 2	EA	1
22	PAS02014357	BATTERY COVER FLIP ESSENTIAL 2	EA	1
23	PAS02014358	MAIN BOARD FLIP ESSENTIAL 2	EA	1
24	PAS02014359	BT ANTENNA FLIP ESSENTIAL 2	EA	1
25	PAS02014360	WATERPROOF LAYER FLIP ESSENTIAL 2	EA	1
	PAS02014361	USB CABLE FLIP ESSENTIAL 2	EA	1
	PAS02014362	GIFT BOX GLOBAL FLIP ESSENTIAL 2	EA	1

Revision List

Version 1.0

* Initial release for JBL Flip Essential 2. 2022-5

Version 1.1

* The page for software upgrade and restore factory setting & SW version checking procedure updated.
2022-6

Version 1.2

* Combine Pos. 7 and 18 to one part - Power & Key Board due to panel PCBA. 2022-8